

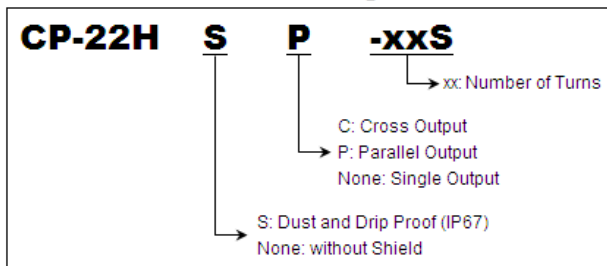
Contactless Hall-IC Angle Sensor

CP-22H-S Series

- Contactless Hall-IC Multi-Turn Angle Sensor
- Effective Electrical Travel : 1800°(5S) ~ 21600°(60S)
- Absolute Linearity : $\pm 1\%$ FS

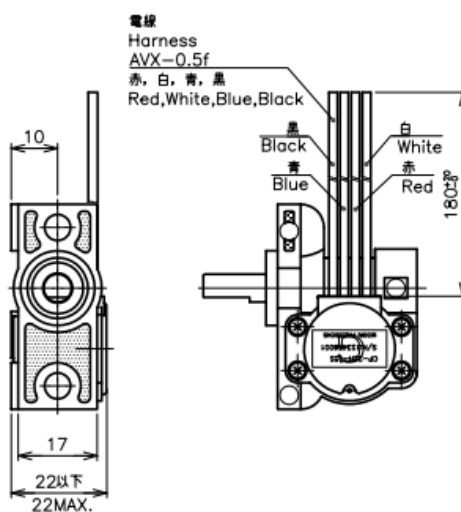
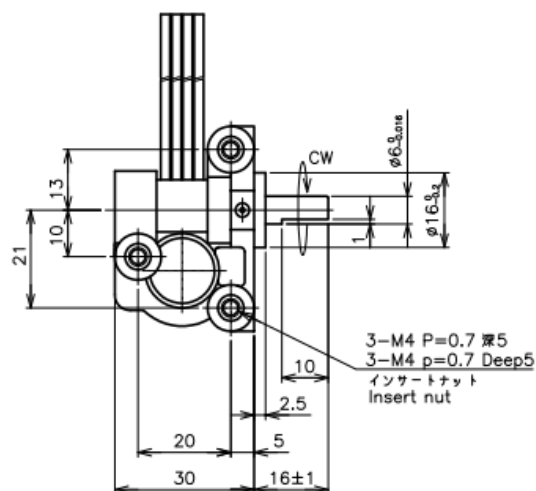
【Material】

- Housing : PBT
- Shaft : Stainless Steel
- Bearing : Stainless Steel

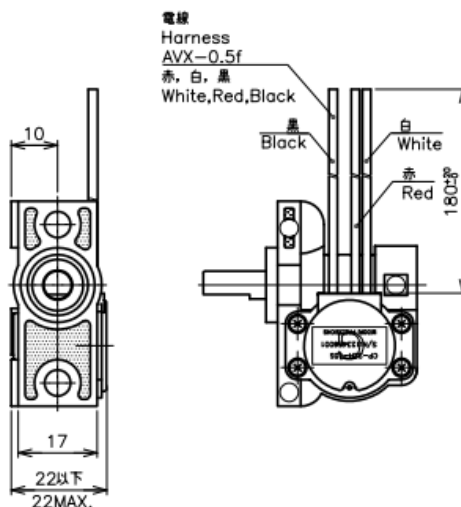
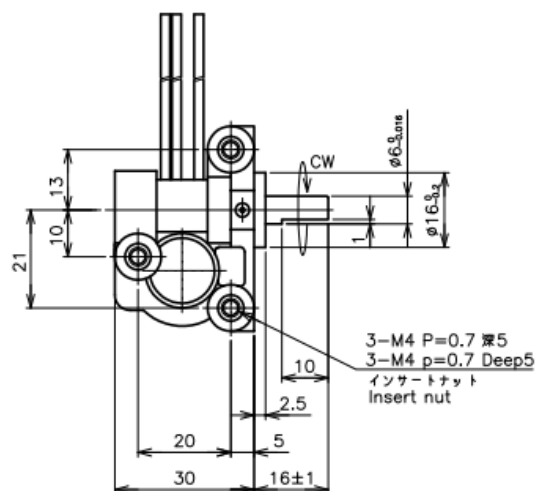
CP-22H-S Model Number Designation

■ Dimension

CP-22HC-xxS (Dual Output)
CP-22HP-xxS

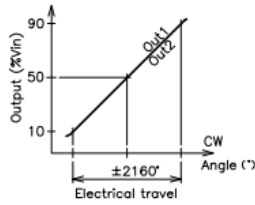


CP-22H-xxS (Single Output)

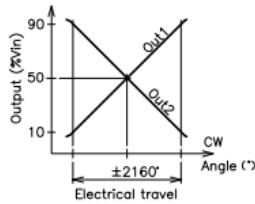


Output Characteristics

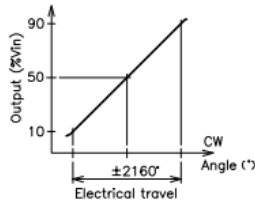
CP-22HP-12S (Parallel Output)



CP-22HC-12S (Cross Output)

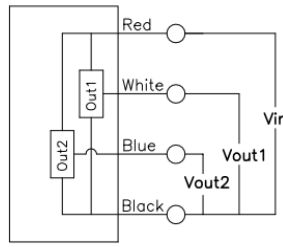


CP-22H-12S (Single Output)



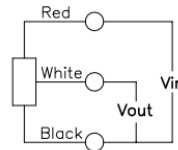
Schematic

Dual Output



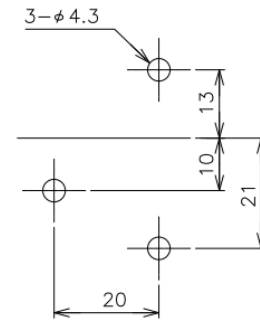
• Red,White,Blue,Black indicate lead colors.

Single Output



• Red,White,Black indicate lead colors.

Mounting



		(5-turn)	(10-turn)	(12-turn)	(30-turn)	(50-turn)	(60-turn)
【Model No.】	Single Output	CP-22H-5S	CP-22H-10S	CP-22H-12S	CP-22H-30S	CP-22H-50S	CP-22H-60S
	Parallel Output	CP-22HP-5S	CP-22HP-10S	CP-22HP-12S	CP-22HP-30S	CP-22HP-50S	CP-22HP-60S
	Cross Output	CP-22HC-5S	CP-22HC-10S	CP-22HC-12S	CP-22HC-30S	CP-22HC-50S	CP-22HC-60S

【Electrical Specifications】

Effective Electrical Travel	1800	3600	4320	10800	18000	21600	°
Output Range	10 ~ 90						%Vin
Absolute Linearity	±1						%FS
Input Voltage	DC5±0.5						V
Load Resistance	10 ~ 150						kΩ
Supply Current	MAX. 32						mA
Insulation Resistance	MIN. 100/DC50						MΩ
Output Resolution	12 (0 ~ 100%Vin)						bit
Hysteresis	MAX. 0.5						%FS
Temp. Characteristics -40 ~ +85°C(Reference Temp. 25°C)	MAX. ±11.25	MAX. ±22.5	MAX. ±27	MAX. ±67.5	MAX. 112.5	MAX. ±135	°
Output Difference (Out 1 and Out 2)	Parallel Output	Difference: ±1					%Vin
	Cross Output	Total: 100±1					

【Mechanical Specifications】

Total Mechanical Travel	360 Endless	°
Torque	MAX.4	mN·m
Thrust Load Tolera	4	N
Radial Load Tolera	4	N
Mass	Approx. 42	g

【Environmental Specifications】

Life Cycles	10 Million (Room Temp., No-load, Rotational direction CW/CCW)	Cycle
Operating Temperature Range	-40 ~ +85 (No condensation)	°C
Storage Temperature Range	-50 ~ +95 (No condensation)	°C
Vibration	5 - 500Hz(6min) 200m/s ² (20G) 3 directions 2 hours each	
Shock	1000m/s ² (100G) 6 directions 3 times	
EMS	100V/m 15k - 1GHz (ISO 11452)	
ESD (Case To Each Terminal)	MAX. ±25kV (IEC 61000-4-2)	
ESD (Between Each Terminal)	MAX. ±12kV (IEC 61000-4-2)	
IP Level	IP54	

Shielded Type

		(5-turn)	(10-turn)	(12-turn)	(30-turn)	(50-turn)	(60-turn)
【Model No.】	Single Output	CP-22HS-5S	CP-22HS-10S	CP-22HS-12S	CP-22HS-30S	CP-22HS-50S	CP-22HS-60S
	Parallel Output	CP-22HSP-5S	CP-22HSP-10S	CP-22HSP-12S	CP-22HSP-30S	CP-22HSP-50S	CP-22HSP-60S
	Cross Output	CP-22HSC-5S	CP-22HSC-10S	CP-22HSC-12S	CP-22HSC-30S	CP-22HSC-50S	CP-22HSC-60S

【Electrical Specifications】

Torque	MAX. 25	mN·m
Mass	Approx. 45	g

【Environmental Specifications】

IP Level	IP67
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■ Handling Instruction

- This product will be locked a shaft at 50% output position with a stopper before shipping
- Do not use Hall-IC sensor as a variable resistor.
- This product may be influenced from external magnetic field.
- Use this sensor in the place where is protected from ESD.